

The Economic Impacts of Horse Racing and Breeding in Ontario, 2004

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By

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Executive Summary

Econometric Research Limited (ERL) has completed a five-year review of the economic impact of horse racing and breeding in Ontario before and after the introduction of slot machines at several tracks. Part of the benchmarking exercise is the estimation of the economic impact of the industry at different critical junctures of time within this five-year period. In this study we report on the key findings on our impact estimates for the year 2004. This is the fifth year milestone of the study and it gives us the opportunity to evaluate the impacts over the five-year period

The economic impact study is part of a larger study that benchmarks the horse racing industry before and after the introduction of slot machines at racetracks. The two studies complement each other and provide a comprehensive assessment of the changes experienced by the industry over the five-year period 1999-2004.

A number of findings of the study are summarised below:

- More than 10 million patrons attend horse races in Canada. In 2004 they wagered over \$1,791 million (approximately \$1,177 million in Ontario). It is also recognised that these patrons spend sizeable amounts on transportation, food, beverage and lodging outside the racetracks pouring “new” money into many local communities. Furthermore, the money horsepeople receive from racing is credited with supporting a large agricultural infrastructure and a way of life in the rural economy. The links of this industry to the rural economy are substantive and complex. A significant horse breeding industry is needed to produce the horses for the racing phase. Thousands of acres of agricultural land and many workers are needed to care, train and groom the animals and maintain the farms where they reside. The gestation period of horses is over 11 months and horses do not race until they reach the age of two. This means that about three years of time and resources are spent on producing and training each horse before it ever reaches the track. It is also true that most of the veterinarians, blacksmiths, farriers, hay and grain suppliers, transportation workers, harness and saddle makers and many others who provide services and products needed to breed, maintain and train the horses are located in the rural parts of the province. Ultimately, many racehorses fill the ranks of pleasure horses, jumpers, and dressage animals, thus continuing the need for labour, feed and supplies.
- The horse racing and breeding industry besides being an agricultural based industry has also contributed to the diversification of the economic base of many rural communities and expanded the tourism, entertainment and export economic base of Ontario.
- Wagering in Ontario, which peaked in 1995 at \$1,179 million (\$638 million on thoroughbred and \$541 million on standardbred) declined slightly to \$1,143 million in 1999, but managed to recoup its losses and rise to \$1,193 million in 2000 and to \$1,244 million in 2002. In 2003, the wagering declined slightly to

\$1,205 million and further in 2004 to \$1,177 million. Wagering today is in nominal terms at the same level it achieved a decade ago. In constant 1992 dollars, total wagering has declined significantly as nominal wagering did not keep up with inflation. In constant dollars wagering peaked at \$1,107 million in 1995 but declined to \$979 million in 1998 which represents a decline of 8.5% over the period. Wagering in constant dollars recovered slightly to \$1,045 million in the year 2000 only to decline slightly to \$1,029 million in 2002 and significantly to \$986.8 million in 2003 and to even lower levels in 2004 with only \$946.4 million. Wagering on standardbred horses also peaked in nominal and constant dollars in 1995 but declined thereafter. In 1992 dollars, wagering on standardbred horses declined from \$508 million in 1995 to \$417 million in 2002 further to \$392 in 2003 but increased slightly to \$402. Wagering on thoroughbred horses remained almost constant (over \$600 million) in real dollars at its peak value between 1995 and 2002, but declined by 2.8% in 2003 to \$595 million and further declined to \$545 million in 2004.

- The horse racing and breeding industry in Ontario is credited with \$2.1 billion of recurrent expenditures in 2004 dollars. This represents almost no increase from the 2003 level, and is pale in comparison to the 25% increase between 2002 and 2003 or the increase from the \$1.2 billion in the year 2000.
- Today the Ontario horse racing industry is hi-tech, a vibrant partner in the entertainment business and is a key node in the New Economy. It combines slot machines with live racing, receives and transmits racing signals to/from the rest of the world, and wagers are accepted over the telephone and the Internet and are made into many teletheatres managed by the industry at almost 100 locations outside the tracks.
- Over 40,040 Ontarians owed their permanent jobs to the horse racing and breeding industry in the province in 2004 (only 30,940 Ontarians owed their jobs to the industry in the year 2000). In fact, many more Ontarians work in the industry on a part-time basis. A total of about 65,000 people are employed in this industry when part-time and casual labour are included.
- All three levels of government realise substantial revenues on the horse racing and breeding industry expenditures (\$1.9 billion compared to \$576 million in the year 2000, a fourfold increase in less than 5 years). The Federal government realises \$454.7 million, whereas the Provincial government realises \$1.23 billion (inclusive of the slot machine profits at the tracks). The remaining \$189.3 million goes to local governments in the province (this total is inclusive of the slot machine revenues paid to host municipalities).
- A total of \$1.6 billion in wages and salaries in Ontario are sustained annually by the total expenditures of the provincial horse racing and breeding industry. This total was slightly over \$1 billion in the year 2000.

- The effective average direct wage in the slot operations exceeds \$50,734 annually which dominates other wages in the horse racing industry and is among the highest industrial wages in Ontario.
- The employment impacts of the horse racing and breeding industry in Ontario are diffused and cover almost the full spectrum of activities. Many of the jobs reflect the strong linkages of horse racing with agriculture, the agricultural manufacturing sector, the agricultural services sector, and the rural economy. **A total of 4,448 person years of employment are sustained by the industry in the agricultural sector.** This under estimates the total employment impacts as many more jobs are created in the rural services sectors.
- The links of this industry to the rural economy are substantive and complex. A significant horse breeding industry is needed to produce the horses for the racing phase. Thousands of acres of agricultural land and many workers are needed to care, train and groom the animals and maintain the farms where they reside. The gestation period of horses is over 11 months and horses do not start to race until they reach the age of two or three. This means that about three to four years of time and resources are spent on producing and training each horse before it ever reaches the track.
- Most of the veterinarians, blacksmiths, farriers, hay and grain suppliers, transportation workers, harness and saddle makers and many others who provide services and products needed to breed, maintain and train the horses are located in the rural parts of the province.
- Ultimately, many racehorses fill the ranks of pleasure horses, jumpers, and dressage animals, thus continuing the need for labour, feed and supplies.

Introduction

Econometric Research Limited (ERL) has completed a five-year review of the economic impact of horse racing and breeding in Ontario before and after the introduction of slot machines. Part of the benchmarking exercise is the estimation of the economic impact of the industry at different critical junctures of time within this five-year period. In this study we report on the key findings on our impact estimates for the year 2004 and trace the changes in these impacts over the past five years.

The enjoyment and appreciation of raising or racing a horse cannot be assigned a dollar value. There is no amount of money that will reflect accurately this utility. If this were not the case, it would be very difficult to explain or rationalise the large sums of money which owners spend on breeding and racing horses that often do not net back even a fraction of these costs to their owners. But the enjoyment of the sport and the participation in racing or raising horses involve the use of scarce resources that create secondary economic consequences far beyond the primary benefits to the users or recipients of income. To the extent that there are opportunity uses (costs) of these scarce resources, it is necessary and useful that these secondary consequences be measured and compared with other alternative allocations of these scarce resources.

The horse racing and breeding industry in Ontario continues to be an agricultural based activity that has also increasingly become an integral part of the New Digital Economy based on Information and Computer Technologies. Gone are the days when the industry was restricted to a narrow market or to a particular physical venue. The horse racing industry in Ontario is now a high-tech, export-oriented industry that reaches far beyond any single location, generating new wealth for many rural communities, several other regions in Ontario and the Nation. A large network of teletheatres transmit and receive racing signals from across Canada and the entire world allowing bettors to access races far removed from the physical locations of these teletheatres. Today it is possible to wager over the phone and some are trying to use the Internet.

The aggregate picture of the Ontario horse racing industry before the slot machines were introduced at racetracks was not encouraging. The industry was stagnant in nominal terms and declining in real terms with some basic inherent instability. The purses were not rising sufficiently to induce the type of transformation that would have been necessary to enable the industry to compete effectively for the Ontario gaming or entertainment dollar.

Horse racing in Ontario declined in the early 1990s as purses and wagering declined in real terms. Several horse racing variables such as the field size, number of live races, unique horses and the number of starters all declined and/or experienced major swings between 1992 and 2000. The introduction of casinos, foreign signals, and foreign purchases of Ontario horses appear to have combined to undermine the vitality, growth and survivability of the industry.

The introduction of slots reversed the picture. Purses increased and so did wagering. Most of the horse racing indicators improved and a new era is beginning to take root in the industry. A new sense of optimism is now evident in the industry and slot revenues have given the industry a shot in the arm. The issue remains as to whether these changes will be sustainable in the face of continuous radical technological changes, appreciation of the Canadian dollar, cannibalization and illegal wagering. It is also an unsettled issue as to the extent to which the new dynamics in the industry have interfered with the core business of the industry. It is also difficult to disentangle the impact of the slots from the many technological changes and expansions that were made, both at the tracks and outside, during the same time frame. Slots, nonetheless, have invigorated the industry and have reversed the past declining trends.

We begin with a general discussion of the methodology of impact analysis, followed by a brief description of our impact system. We then proceed with a detailed analysis of the impact results and end up with a conclusion that presents a summary of the results.

Economic Impact Analysis and Methodology

A dollar spent on horse racing or breeding circulates and re-circulates within the economy, multiplying the effects of the original expenditures on overall economic activity. This process is referred to as the economic *multiplier effect*. It operates at several levels:

- The initial expenditures of the track on wages and materials are generally referred to as the direct costs of operation and their effects are referred to as the *initial (direct) effects*.
- Subsequent purchases by suppliers of materials and services to sustain the original and derivative expenditures are called the *indirect effects*.
- The *induced effects* emerge when workers in the sectors stimulated by initial and indirect expenditures spend their additional incomes on consumer goods and services.

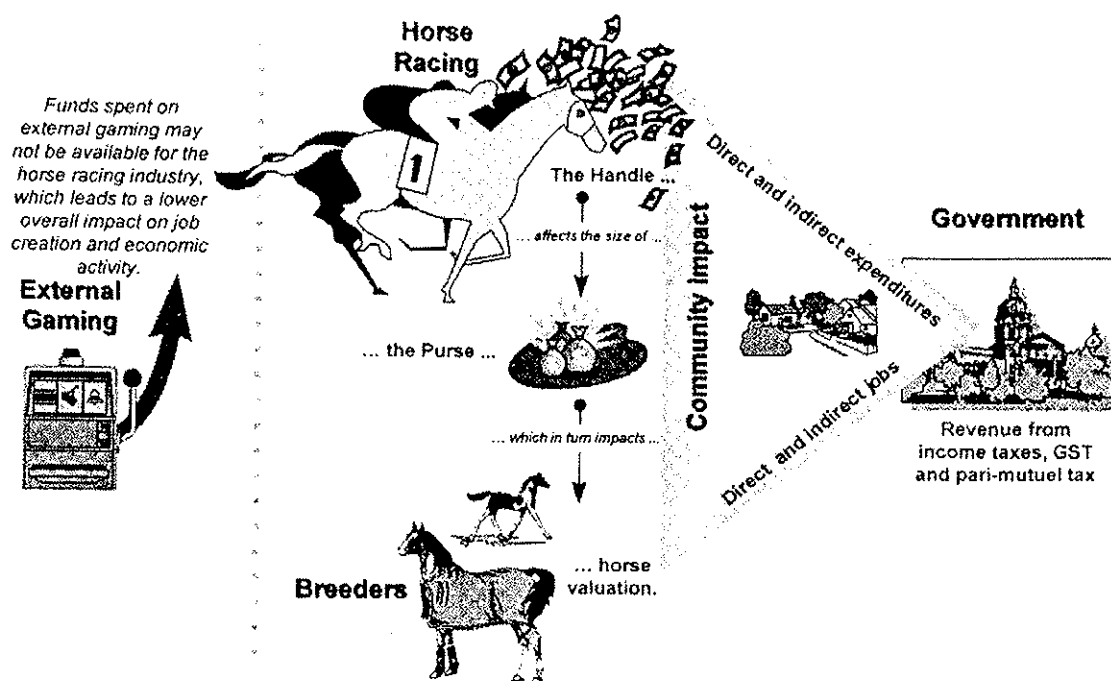
Wagering has traditionally driven this industry. It is the total wager pool that determines the size of the purse and the race horse and race track owners' incomes. Higher incomes for the race horse owner create higher prices for younger horses. This increases the income of the breeder, which increases the value of the breeding stock, and the increase in the value of the breeding stock ultimately increases the wager and the virtuous circle continues.

It is a fact that for every horse at the racetrack there are more than three horses at the farm (Wright, 1996). It is also well known that the purses often cover only a fraction of the total cost of breeding and racing horses incurred by owners. Thus purses provide a low estimate of the actual connection a racetrack has with the rural/agricultural sector. All sectors of the economy benefit from the spin-offs created by the expenditures of the

breeders and those associated with the racing activity (see Figure 1). These are not restricted to the original expenditures, they are multiplied as indirect and induced effects are taken into account.

Figure 1 below also depicts the nature and extent of the economic impact of the competition that horse racing is now facing from other gaming activities, and the likely impacts that this may have on the economy at large. Horse racing lost its monopoly on legalised gambling in 1970s and has had to compete with other forms of gambling for the gaming dollar. This has happened at a time when the industry had to also compete for the Ontario sport dollar with a large menu of organised sport events and other entertainment activities that did not exist before. The average age of the bettor at horse racing events increased and the industry proved unable to attract younger participants, especially females. The impact results are structured to reveal the impact of introducing slot machine revenues that are used in part to increase purses and rejuvenate the industry.

Figure 1 – The Impact of Horse Racing on the Economy



Source: Ernst & Young, Financial Feasibility Analysis of the Impact of Slot Machines

Some of the key terms and definitions are presented below to assist the reader in interpreting the results of the economic impact analysis:

Initial expenditures – This figure indicates the amount of expenditures directly made by the operators of the track, the Associations in the industry, and by breeders and racehorse owners. It is these expenditures that typically drive the impact results.

Value Added (Gross Provincial Income) – This figure represents net output generated by the initial expenditures in the province. It is typically the sum of wages, rent, interest and profits in addition to indirect business taxes and depreciation minus subsidies.

Employment – This refers to the total person years (full-time equivalent jobs) generated by the horse racing and breeding industry including tracks, the Associations, farms, breeders, horse owners and agri-business servicing the industry.

Taxes – Our impact system generates a large number of taxes (personal income taxes, corporate profit taxes, GST, PST, local property and business taxes, etc..) each of which is linked with the level of government receiving it. For example, the Federal government receives the proceeds from the GST tax, the Provincial government receives the provincial sales taxes, and the Local government receives the property and business tax.

Imports – These represent the goods and services acquired from outside the province to sustain the activities of the horse racing and breeding industry. They essentially represent leakages (seeping away) from the province.

Multipliers – These are summary measures that represent the division of the total impacts (direct, indirect and induced) by the initial expenditures. For example, the income multiplier associated with horse racing is calculated by dividing the total income (value added) impact by the initial expenditures on horse racing. The only exception is that of the employment multiplier where total employment is divided by direct employment in order to preserve the common units.

Economic impact analysis is a useful mathematical tool capable of quantifying the patterns and magnitudes of interdependence among sectors and activities. It is predicated on two fundamental propositions.

- First, regardless of the inherent value of primary activities such as horse racing or entertainment, to the extent that they involve the use of scarce resources they generate economic consequences that can be measured and compared.
- Second, economic impacts are only partially captured by assessing direct expenditures. Inasmuch as the economy is a complex whole of interdependent and interacting activities, there are some significant indirect and induced impacts associated with direct expenditures. These indirect and induced impacts are often larger than the direct impacts.

The Economic Impact Model

The impact model used here is a special application of a generic regional impact model (RIM: Ontario) developed by Econometric Research Limited. It is a unique model that captures the economic impact of tourism expenditures at the local level (municipalities, counties or economic regions), the provincial level (Ontario) and the national level. The model is based on a novel technology that integrates input-output analysis and location theory. The system has already been applied to the study of The Economic Impact of Tourism in Niagara Falls, The Economic Impact of Casino Windsor,

The Economic Impact of Horse Racing and Breeding in Ontario, 1994, and several proposed casinos, industrial and tourism projects in Ontario, Alberta, Quebec and British Columbia.

The model utilises a large set of economic and technical databases for Ontario that are regularly published by Statistics Canada. A short list includes the inter-provincial input output tables, employment by sector, taxes by type of tax and the level of government collecting it, prices of products, energy used in physical and energy units, etc.

The model was used to calculate the impact of a number of activities associated with the horse breeding and racing industry in Ontario. These activities include track operational expenditures, farmers and horse owners' expenditures on breeding and racing. Since several of the separate activities (e.g., track, horsemen, owners, etc.) involved some overlap with other activities, care was exercised to avoid duplication. Total gross output by industry is calculated first and then used to calculate value added, labour income, taxes and employment using the industry and commodity specific parameters.

Cost of Production of Horses in the Racing and Breeding Phases

Although it is hard to estimate the precise number of Ontario's total racehorse population by type and stage of development, we were able to obtain data on standardbred horses from Ms. Cookson and from Ms. Hauver and data on thoroughbred horses from the Jockey Club Information System. Using this data we have estimated this total to be 34,266 horses in 2004. This represents a slight significant increase over the 34,000 in 2003 but represents a substantial increase over the 28,233 horses in the year 2000 (this represents a 21.4% increase over the period).

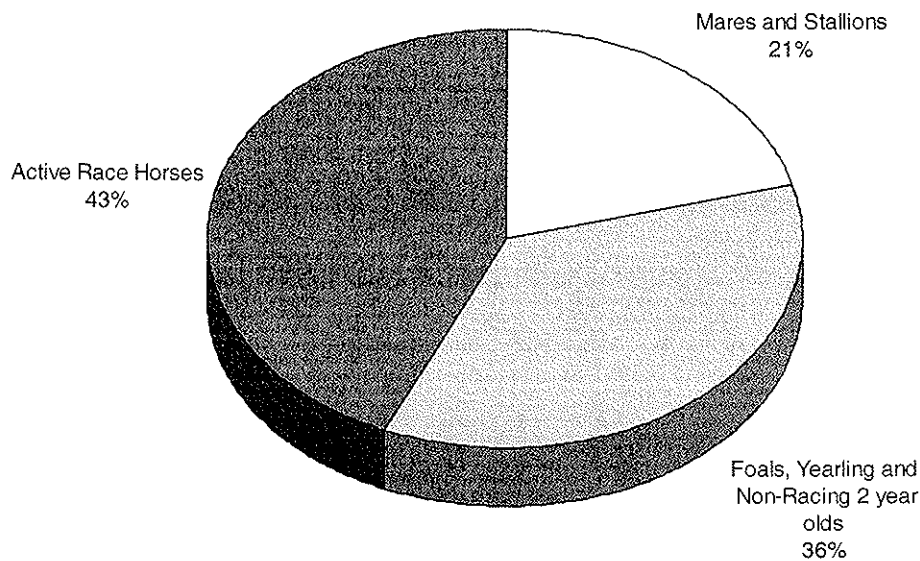
There is more standardbred than thoroughbred horses. The ratio in 2004 is about 2.34 to 1. More than 43.4% of this total is in the active racing stage, 20.7% are mares and stallions, and 36% are foals, yearlings and non-racing 2 years old (see Table 1 and Figure 2.) The total number of horses and the distribution between active and farm horses and between thoroughbred and standardbred is crucial for the determination of total annual cost of production and feeding.

Table 1
2004 Ontario Race Horse Population

	Thoroughbred	Standardbred	Quarter Horse	TOTAL
Mares and Stallions	1,418	5,591	100	7,109
Foals, Yearling & Non-Racing 2 Year Olds	4,991	7,180	127	12,298
Active Race Horses	3,728	11,027	105	14,860
Totals	10,137	23,797	332	34,266

Source: Janet Cookson Standardbred Canada and the Jockey Club Information System and Karen Hauver Ontario Sires Stal

Figure 2
2004 Race Horse Population Breakdown



Average daily feed cost (feed, bedding and vitamins) was calculated based on \$13.39 per day for thoroughbred racehorses and \$13.12 per day for standardbred horses. These numbers have changed recently but in the absence of a scientific survey, it is difficult to ascertain their full impact. We have continued to use our earlier estimates adjusted for cost of living changes. The cost of production includes the cost of keeping horses per day at the racetrack and/or on the farm. These costs comprise all variable and fixed costs such as labour, insurance, trucking, depreciation, etc. The details of these costs are in tables 2, 3, 4, 5, 5a, 5b, and 5c. Figures 3, 4, 5, and 6 display the same results

graphically. The costs vary by the age of the horse, stage of development, type and quality.

There are significant differences in the cost of production of thoroughbred and standardbred horses. In Table 2, the average variable cost of production of a thoroughbred horse is over \$168.63 per day or \$55,484 per year (Table 4 and Figure 5 present the full distribution of this cost). Alternatively, the average variable cost of production of a standardbred horse per day is \$153.79 or \$51,584 per year, which is slightly, less than the corresponding cost of a thoroughbred (Table 3 and Figure 4). Breeding costs are lower than the corresponding production costs during the racing phase for both standardbred and thoroughbred horses, which fact brings the average total cost of a horse in Ontario to \$31,475 per year in 2004 (Table 2) which is really not substantially higher than the \$30,593 cost of production in the year 2000.

Table 2

Total Feed Cost and Production Costs, 2004

	Horse Numbers	Annual Feed Cost*	Annual Cost of Production**	Production Cost Per Horse
Active Race Horses	14,860	\$71,161,568	\$775,655,680	\$52,198
Other Farm Horses	19,406	\$28,049,875	\$302,881,979	\$15,607
Totals	34,266	\$99,211,443	\$1,078,537,659	\$31,475

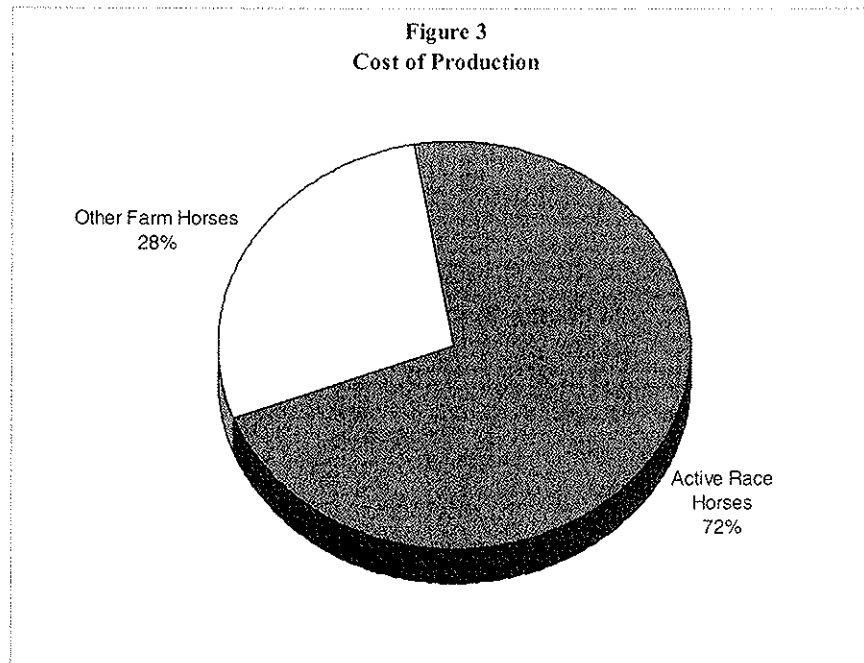
Source: Econometric Research Limited and Dr. Ted Clarke, Elmira Raceway

Notes:

*: Average daily feed cost - the cost of feed, bedding and vitamins .

Feed costs were calculated using \$13.12/Day for Standardbred, \$13.39 for thoroughbred and \$3.96/Day for Farm Horses

**: Cost of production = the cost of keeping horses per day at the race track and/or the farm. It includes all variable and fixed costs eg. feed, labour, insurance, trucking, buildings and depreciation on buildings, equipment and horses. It was calculated using \$111.37/Day for Standardbred Racehorses, and \$121.92/Day for Thoroughbred Racehorses, and \$42.76/Day for Farm Horses



Training costs are the largest single cost item during the racing phase with nearly \$178.4 million of expenditures on standardbred horses and a corresponding \$98 million on thoroughbred horses (tables 3 & 4). Veterinary, feed and depreciation are also large cost items during this phase.

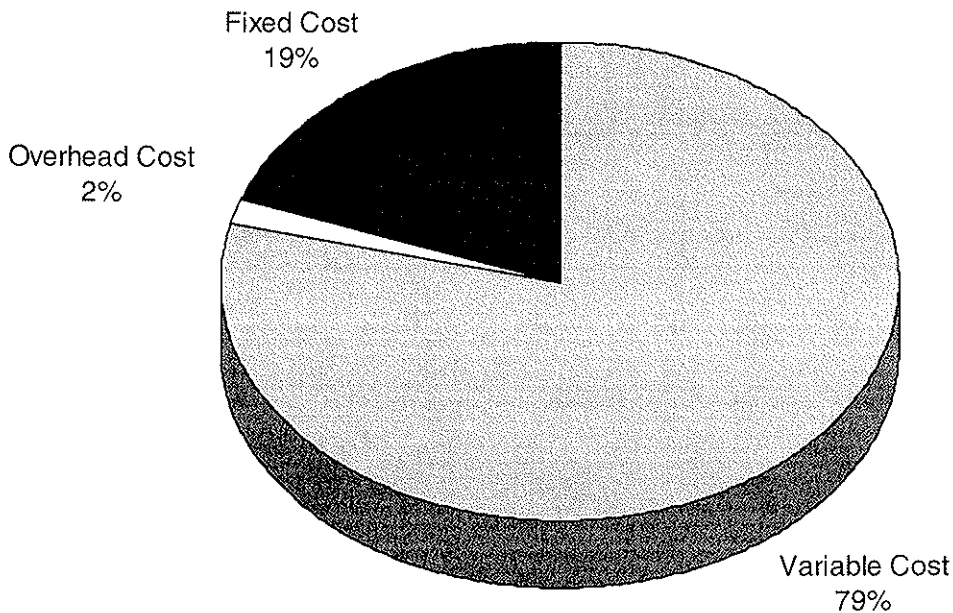
The annual cost of production increased substantially between 2000 and 2004, mainly due to the increase in the number of horses rather than due to increases in the per-horse cost of production. This increase in nominal dollars is in the order of \$210 million over the 5-year period.

Table 3
Cost of Production - Standardbred Race Horses

Item	Cost Per Horse Per Day	Percentage	Annual Cost	Annual Cost Per Horse
Feed	\$7.20	5.09%	\$28,978,956	\$2,628
Vitamins	\$2.04	1.44%	\$8,210,704	\$745
Bedding	\$3.88	2.75%	\$15,616,437	\$1,416
Vet	\$13.66	9.67%	\$54,979,519	\$4,986
Training	\$44.32	31.36%	\$178,381,574	\$16,177
Groom	\$2.91	2.06%	\$11,712,328	\$1,062
Equipment	\$3.32	2.35%	\$13,362,519	\$1,212
Transportation	\$11.08	7.84%	\$44,595,393	\$4,044
Shoeing	\$4.20	2.97%	\$16,904,391	\$1,533
Boarding	\$16.62	2.94%	\$16,723,273	\$1,517
Race Fees	\$6.06	4.29%	\$24,390,621	\$2,212
Legal	\$0.91	0.64%	\$3,662,618	\$332
Travel	\$1.21	0.86%	\$4,870,075	\$442
Misc.	\$1.52	1.08%	\$6,117,780	\$555
Interest	\$0.23	0.16%	\$925,717	\$84
Horse Insurance	\$2.28	1.61%	\$9,176,669	\$832
Communication	\$0.36	0.25%	\$1,448,948	\$131
Depreciation	\$15.18	10.74%	\$61,097,299	\$5,541
Investment	\$12.14	8.59%	\$48,861,740	\$4,431
Linaments	\$2.03	1.44%	\$8,170,456	\$741
Jogger Rental	\$2.03	1.44%	\$8,170,456	\$741
Licenses	\$0.61	0.43%	\$2,455,162	\$223
Total	\$153.79	100.00%	\$568,812,633	\$51,584

Source: Econometric Research Limited

Figure 4
Distribution of Cost of Production
Standardbred Race Horses



The cost of production during the breeding phase varies with the age of the horse and its stage of development. The details of these expenditures differentiated by type of horse are presented in tables 5a, 5b and 5c and Figure 6.

Horse owners in Ontario spent a total of about \$303 million per year during the breeding phase in the year 2004. Wages are the largest costs during this phase with about \$69 million. Stud fees, depreciation and sales' commissions are also large expenditure items during the breeding phase (Table 5 and Figure 6).

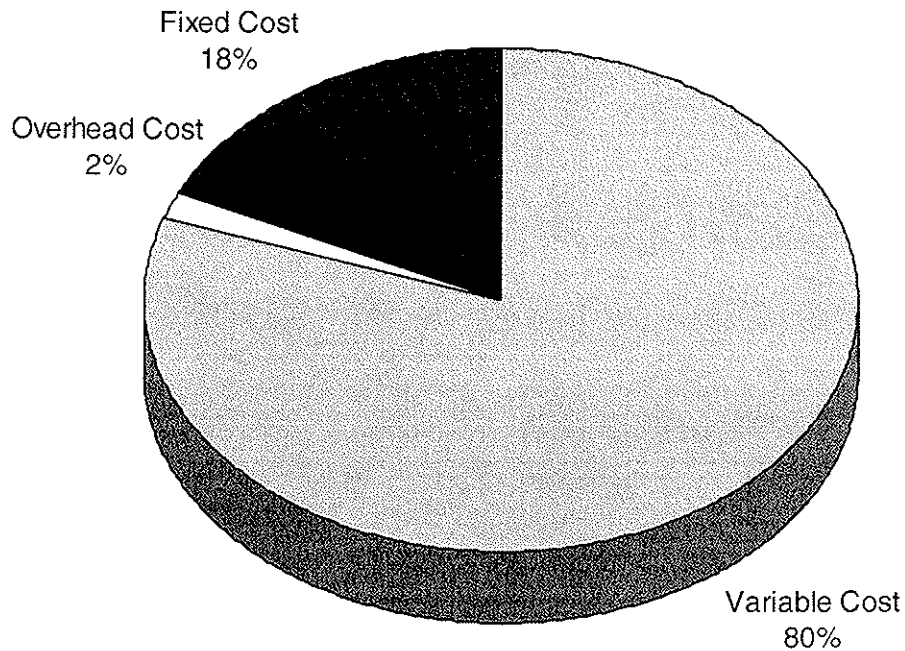
In the year 2000 wages were also the largest cost item but stood only at \$50.5 million. Stud fees increased substantially between 2000 and 2004 from \$13.8 million to \$18.3 million. Insurance costs over the same period increased from \$12.5 million to over \$18 million.

Table 4**Cost of Production - Thoroughbred Race Horses**

Item	Cost Per Horse Per Day	Percentage	Annual Cost	Annual Cost Per Horse
Feed	\$8.31	5.47%	\$11,307,583	\$3,033
Vitamins	\$2.03	1.34%	\$2,762,262	\$741
Bedding	\$3.05	2.01%	\$4,150,196	\$1,113
Vet	\$12.14	7.99%	\$16,519,141	\$4,431
Training	\$72.02	47.38%	\$97,999,054	\$26,287
Groom	\$2.91	1.91%	\$3,959,695	\$1,062
Equipment	\$2.73	1.80%	\$3,714,766	\$996
Transportation	\$3.04	2.00%	\$4,136,589	\$1,110
Shoeing	\$3.64	2.39%	\$4,953,021	\$1,329
Boarding	\$22.16	3.64%	\$7,538,389	\$2,022
Race Fees	\$0.00	0.00%	\$0	\$0
Legal	\$0.91	0.60%	\$1,238,255	\$332
Travel	\$1.21	0.80%	\$1,646,471	\$442
Misc.	\$1.52	1.00%	\$2,068,294	\$555
Interest	\$0.23	0.15%	\$312,966	\$84
Horse Insurance	\$2.28	1.50%	\$3,102,442	\$832
Communication	\$0.36	0.24%	\$489,859	\$131
Depreciation	\$25.30	16.64%	\$34,426,216	\$9,235
Investment	\$2.15	1.41%	\$2,925,548	\$785
Linaments	\$2.03	1.34%	\$2,762,262	\$741
Jogger Rental	\$0.00	0.00%	\$0	\$0
Licenses	\$0.61	0.40%	\$830,039	\$223
Total	\$168.63	100.00%	\$206,843,047	\$55,484

Source: Econometric Research Limited

Figure 5
Distribution of Cost of Production
Thoroughbred Race Horses



A number of interesting results are displayed in Table 5. These include:

- Expenditures on horses during the breeding phase are not as large as the expenditures during the racing phase but they involve a rich mix of services and products. While the expenditures during the racing phase have increased measurably as the purses increased with the injection of slot revenues into live racing. The breeding phase expenditures have yet to pick up given the typical five-year cycle of this phase.
- A large number of these expenditures are made in the rural communities where horses are trained and prepared for the races.
- A good number of these expenditures involve manufacturing products, but the majority of the expenditures are on agriculture and services.

Table 5
Cost of Production - Breeding Phase
Annual Variable Costs

	Thoroughbred*	Standardbred*	Weighted Average	Total Cost
Wages	20.45%	23.96%	22.79%	\$69,018,006
Benefits	1.28%	2.35%	1.99%	\$6,034,766
Workmens Comp.	0.85%	1.98%	1.60%	\$4,853,375
UI	0.18%	0.20%	0.19%	\$585,522
Contract Labour	0.39%	0.41%	0.40%	\$1,221,574
Agents Fees	0.74%	0.01%	0.25%	\$769,131
Sales Preparation	0.49%	0.58%	0.55%	\$1,665,625
Sales Commissions	2.18%	11.43%	8.34%	\$25,257,365
Advertising	0.96%	2.25%	1.82%	\$5,509,219
Stud Fees	12.63%	2.75%	6.05%	\$18,328,931
Nominations	1.49%	1.11%	1.24%	\$3,746,593
Boarding	1.57%	0.75%	1.02%	\$3,101,548
Professional Services	1.00%	1.13%	1.09%	\$3,290,992
Vet Care	3.28%	3.06%	3.13%	\$9,490,853
Farrier	0.98%	0.98%	0.98%	\$2,968,243
Feed/Bedding	4.47%	4.78%	4.68%	\$14,164,004
Vaning	0.69%	0.83%	0.78%	\$2,372,225
Tack & Supplies	1.62%	0.64%	0.97%	\$2,930,315
Telephone	0.64%	1.12%	0.96%	\$2,906,464
Utilities	1.29%	1.47%	1.41%	\$4,270,185
Office Equipment	0.65%	0.39%	0.48%	\$1,444,389
Travel	0.88%	0.61%	0.70%	\$2,120,851
Fertilizer	0.37%	0.57%	0.50%	\$1,524,005
Gas & Oil	0.52%	0.38%	0.43%	\$1,292,647
Repairs	2.57%	3.40%	3.12%	\$9,457,934
Depreciation - Horse	13.56%	13.02%	13.20%	\$39,981,775
Depreciation - Machinery	5.04%	3.06%	3.72%	\$11,272,172
Automobile	0.59%	0.91%	0.80%	\$2,432,350
Insurance - Horse	3.54%	0.76%	1.69%	\$5,115,577
Insurance - Other	2.83%	4.55%	3.98%	\$12,040,296
Interest	3.80%	3.67%	3.71%	\$11,247,343
Licenses	0.13%	0.07%	0.09%	\$272,744
Sales Tax	0.81%	0.37%	0.52%	\$1,565,993
Property Taxes	0.42%	0.81%	0.68%	\$2,058,620
Other Property Tax	0.08%	0.22%	0.17%	\$524,645
Local Tax	0.16%	0.60%	0.45%	\$1,371,962
Other	6.87%	4.82%	5.51%	\$16,673,743
Total	100.00%	100.00%	100.00%	\$302,881,979

Source: Econometric Research Limited

Table 5a

Annual Variable Costs of Production
Breeding Phase, Thoroughbred

Item	Cost
Wages	\$20,697,711
Benefits	\$1,295,505
Workmens Comp.	\$860,296
UI	\$182,180
Contract Labour	\$394,724
Agents Fees	\$748,964
Sales Preparation	\$495,935
Sales Commissions	\$2,206,406
Advertising	\$971,628
Stud Fees	\$12,782,987
Nominations	\$1,508,048
Boarding	\$1,589,017
Professional Services	\$1,012,113
Vet Care	\$3,319,731
Farrier	\$991,871
Feed/Bedding	\$4,524,145
Vaning	\$698,358
Tack & Supplies	\$1,639,623
Telephone	\$647,752
Utilities	\$1,305,626
Office Equipment	\$657,873
Travel	\$890,659
Fertilizer	\$374,482
Gas & Oil	\$526,299
Repairs	\$2,601,130
Depreciation - Horse	\$13,724,252
Depreciation - Machinery	\$5,101,050
Automobile	\$597,147
Insurance - Horse	\$3,582,880
Insurance - Other	\$2,864,280
Interest	\$3,846,029
Licenses	\$131,575
Sales Tax	\$819,812
Property Taxes	\$425,087
Other Property Tax	\$80,969
Local Tax	\$161,938
Other	\$6,953,216
Total	\$101,211,301

Source: Econometric Research Limited

Table 5b

Annual Variable Costs of Production
Breeding Phase, Standardbred

Item	Cost
Wages	\$48,320,295
Benefits	\$4,739,261
Workmens Comp.	\$3,993,079
UI	\$403,341
Contract Labour	\$826,850
Agents Fees	\$20,167
Sales Preparation	\$1,169,690
Sales Commissions	\$23,050,959
Advertising	\$4,537,590
Stud Fees	\$5,545,944
Nominations	\$2,238,545
Boarding	\$1,512,530
Professional Services	\$2,278,879
Vet Care	\$6,171,123
Farrier	\$1,976,373
Feed/Bedding	\$9,639,858
Vaning	\$1,673,867
Tack & Supplies	\$1,290,692
Telephone	\$2,258,712
Utilities	\$2,964,559
Office Equipment	\$786,516
Travel	\$1,230,191
Fertilizer	\$1,149,523
Gas & Oil	\$766,349
Repairs	\$6,856,803
Depreciation - Horse	\$26,257,522
Depreciation - Machinery	\$6,171,123
Automobile	\$1,835,203
Insurance - Horse	\$1,532,697
Insurance - Other	\$9,176,016
Interest	\$7,401,314
Licenses	\$141,169
Sales Tax	\$746,182
Property Taxes	\$1,633,532
Other Property Tax	\$443,675
Local Tax	\$1,210,024
Other	\$9,720,527
Total	\$201,670,679

Source: Econometric Research Limited

Table 5c

Annual Variable Costs of Production
Breeding Phase, Total

Item	Cost
Wages	\$69,018,006
Benefits	\$6,034,766
Workmens Comp.	\$4,853,375
UI	\$585,522
Contract Labour	\$1,221,574
Agents Fees	\$769,131
Sales Preparation	\$1,665,625
Sales Commissions	\$25,257,365
Advertising	\$5,509,219
Stud Fees	\$18,328,931
Nominations	\$3,746,593
Boarding	\$3,101,548
Professional Services	\$3,290,992
Vet Care	\$9,490,853
Farrier	\$2,968,243
Feed/Bedding	\$14,164,004
Vaning	\$2,372,225
Tack & Supplies	\$2,930,315
Telephone	\$2,906,464
Utilities	\$4,270,185
Office Equipment	\$1,444,389
Travel	\$2,120,851
Fertilizer	\$1,524,005
Gas & Oil	\$1,292,647
Repairs	\$9,457,934
Depreciation - Horse	\$39,981,775
Depreciation - Machinery	\$11,272,172
Automobile	\$2,432,350
Insurance - Horse	\$5,115,577
Insurance - Other	\$12,040,296
Interest	\$11,247,343
Licenses	\$272,744
Sales Tax	\$1,565,993
Property Taxes	\$2,058,620
Other Property Tax	\$524,645
Local Tax	\$1,371,962
Other	\$16,673,743
Total	\$302,881,979

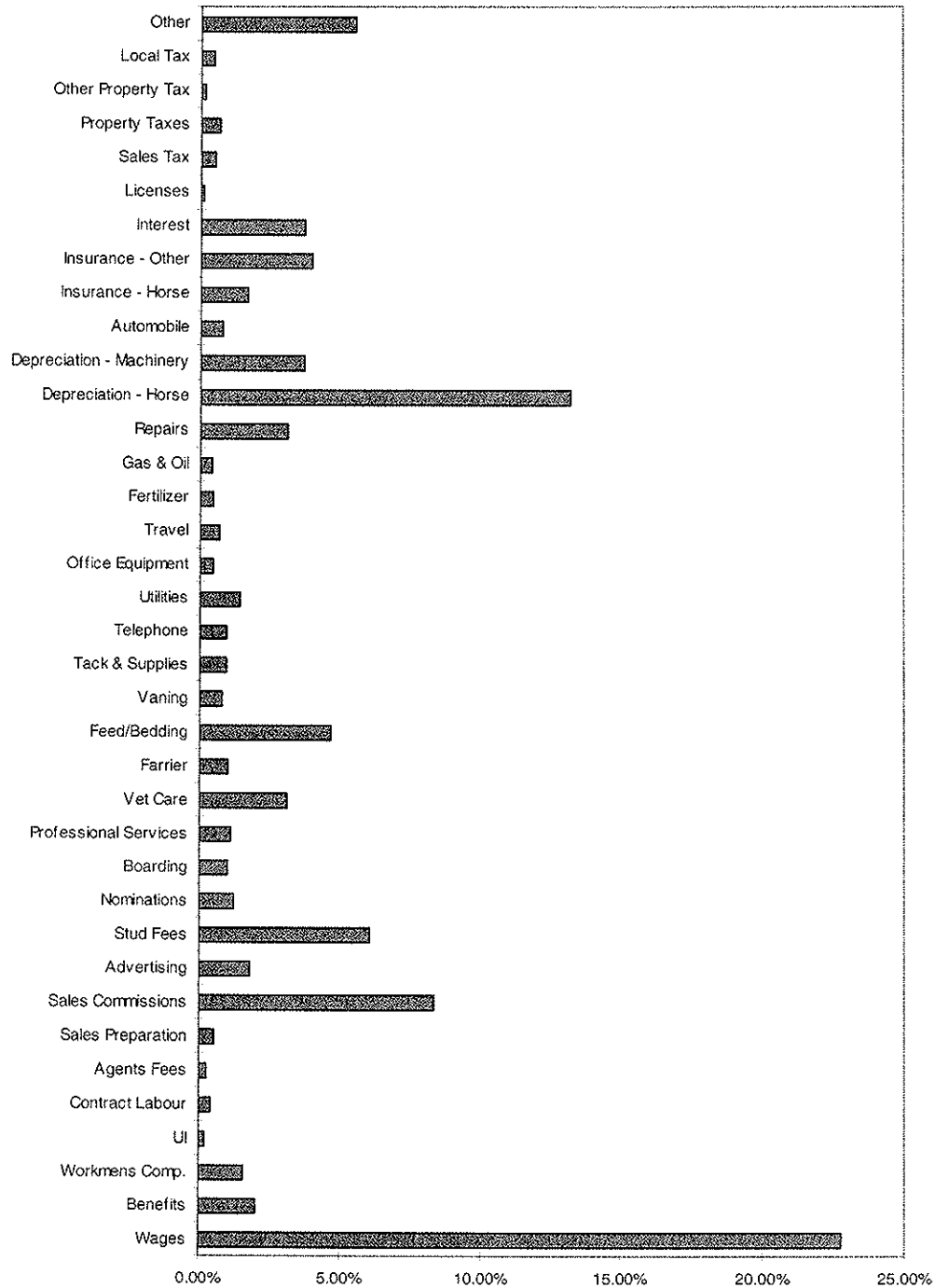
Source: Econometric Research Limited

There are major and significant differences among the cost of production in the breeding phase of thoroughbred and standardbred horses, and among foals, mares and stallions, and yearlings and non-racing two-year-olds.

- The annual variable cost of production of thoroughbred horses in the breeding phase is slightly more than half as large as the corresponding expenditures on standardbred foals, largely due to the differences in horse numbers.
- Expenditures on stud fees, sales' commissions, depreciation and wages and salaries are more than 50% of the total expenditures on thoroughbred and standardbred mares and stallions in the breeding phase.

The products and services needed to sustain thoroughbred and standardbred foals, mares and stallions and yearlings and non-racing two-year-olds add up to a significant total. The rich mix of these requirements suggests that the horse breeding industry in Ontario has a diversified impact on a wide mix of sectors.

Figure 6
Breeding Phase Cost Distribution by Item



Capital and Operational Expenditures to Support Slot Machines at Horse Racing Tracks

The Government of Ontario through the Ontario Lottery and Gaming Corporation (OLGC) and the race tracks that host slot machines have spent considerable amounts of money to house these machines and to keep them operational. The OLGC expenditures on operating these machines for the year 2004 add up to a significant \$689.4 million. Of this total, \$33.6 million is paid in payroll expenses to support the employees working on operating and maintaining the slot machines at the tracks and \$363.6 million in commissions, \$179.4 million are spent on gaming operations including finance, security, surveillance and promotional expenditures, \$68.1 on general administration and marketing and \$44.7 million on depreciation, amortisation of assets and contingency. The Ontario Government collected the surplus of \$850.1 million (Table 6). These large slot revenues are; however, lower than earlier revenues realized by the tracks. Given their increasing dependence on these revenues for track expenditures and purses, the declines in slot revenues can have drastic impacts on the horse racing industry in the years to come.

Table 6
Selected Financial OLGC Data for 2003-04
Thousands of 2004 Dollars

Track	Gross Slot Revenue	Payroll	Commission	Unallocated Gaming Expenses[1]	Undistributed Expenses[2]	Other Expenses[3]	Total Expenses
Clinton	11,656	776	2,914	2,408	970	374	7,442
Dresden	9,374	746	2,344	2,516	957	1,138	7,701
Flamboro	139,138	2,883	33,108	15,818	5,704	4,674	62,187
Ft. Erie	126,245	3,471	29,186	19,934	7,758	5,281	65,630
Georgian Downs	84,015	1,486	21,004	7,612	3,659	1,048	34,809
Grand River	7,889	282	1,972	1,448	748	466	4,916
Hanover	12,585	837	3,146	2,572	1,029	1,032	8,616
Hiawatha	44,270	1,364	11,062	20,781	4,134	2,221	39,562
Kawartha	68,310	1,324	17,708	7,526	3,990	1,767	32,315
Mohawk	166,016	2,687	39,508	13,656	5,734	3,347	64,932
Rideau	98,569	3,081	22,750	14,366	6,153	5,719	52,069
Sudbury	39,098	1,139	9,774	6,645	3,047	1,577	22,182
Western	75,589	2,011	18,399	9,141	4,318	2,304	36,173
Windsor	65,171	2,583	15,511	12,363	4,894	3,725	39,076
Woodbine	575,728	7,996	131,226	39,821	13,891	9,222	202,156
Woodstock	15,824	897	3,956	2,837	1,134	819	9,643
Category Totals	1,539,477	33,563	363,568	179,444	68,120	44,714	689,409

Source: OLGC

Notes: [1] Means Casino Finance, Security, Surveillance, Promotion Expenses, GST
[2] Means General & Administration, Facilities, Marketing
[3] Means Amortization, Depreciation, Contingency

Horse racing track owners make year round expenditures to support their slot operations and have invested heavily in upgrading their facilities for live racing and for housing the gaming areas where slot machines are installed. These expenditures are differentiated by category of expenditure and by the main purpose of the spending in Table 7. The data in Table 7 were obtained by surveying the various tracks in 2001. A total of \$319.2 million was spent on both slot-related and non-slot related upgrades with the former exceeding \$266.2 million and the latter \$53 million respectively. These are the same figures used in the 2000 Impact Study. In the absence of more reliable new data we opted to use the 2001 data without any inflation adjustment. More recent data is being collected by tracks but show a total of \$297 million has been spent on capital by the tracks up until the year 2003 which is lower than the data we were able to collect up until the year 2001.

Table 7
Race Tracks Capital Expenditures
(In 2002 Dollars)

	Slot Related	Non-Slot Related	Total
Construction	\$204,804,000	\$19,272,071	\$224,076,071
Landscaping	\$8,420,000	\$262,613	\$8,682,613
Parking	\$11,497,333	\$325,341	\$11,822,675
Equipment	\$5,947,043	\$16,218,048	\$22,165,091
Furniture & Fixtures	\$1,946,451	\$4,410,755	\$6,357,205
Signing	\$949,995	\$156,667	\$1,106,661
Other	\$32,594,908	\$12,368,361	\$44,963,269
Total	\$266,159,729	\$53,013,856	\$319,173,585

Source: Survey Conducted by Econometric Research Limited

Construction expenditures by tracks are the largest component of both the slot and non-slot related capital expenditures. Equipment is also a large item of the non-slot-related capital expenditures. The impacts of these expenditures are massive but temporary; they will last for as long as the project is under completion. By way of contrast, the largest component in the capital expenditures on slot related activities at the tracks by the Ontario Lottery and Gaming Corporation (OLGC) is that of slot machines with over \$93 million. Expenditures on leasehold improvements and site signage are also large. In total OLGC capital expenditures on slot related activities at tracks in Ontario add up to \$314.3 million (Table 8).

It is important to note here that the slot machines are typically imported from outside the province and the major share of the common area expenses is already covered by the track operational expenditures. Equally important is the fact that the tracks have spent considerable sums of money on upgrading their facilities in both areas of operations—

horse racing and slots. In fact the total capital expenditures of the two parties are almost equivalent with a slight edge in favour of the tracks.

Table 8
Summary of OLGC Construction Capital
Slot Machines at Tracks
As of July 21, 2001

(in 2000 Dollars)

Furniture and Equipment	\$6,012,205
Leasehold Improvemets	\$84,161,144
Security/Surveillance	\$15,790,284
Gaming Management System	\$7,868,199
Slot Machines	\$93,052,821
Cage and Coin	\$6,716,807
Site Signage	\$25,648,341
Tokens	\$7,317,504
Subtotal	\$246,567,305
Slot Startup Costs	\$51,510,958
Support Staff	\$16,291,744
Total	\$314,370,007

Source: OLGC Racetracks Slots Division

The Impact Results

The horse racing and breeding industry in Ontario is credited with \$2.1 billion of recurrent expenditures in 2004 dollars. This is almost twice as high as the \$1.2 billion expenditures made by the industry in the year 2000 but represents only a slight increase over the previous year. These expenditures include a number of key components. Among the large expenditures are those made by the tracks on operations (including concessions, programs and common area expenses on slot machines where relevant) which in the year 2004 are assumed to remain unchanged at \$314.5 million. The largest expenditures of \$775.7 million are made in the racing phase. These expenditures include wages and benefits for labourers, agents' fees, vet care, stud fees, utilities, property taxes, etc. Similar but lower expenditures of about \$302.9 million are made in the breeding phase. Associations active in the industry spent a constant amount of \$14.1 million, whereas the Ontario government spent \$698.4 million on labour and other operating expenditures. In the year 2000, slot operations were only \$93.6 million. We did not factor in the commissions paid as these may result in double counting their impacts once spent by municipalities, tracks or horse people.

These annual expenditures on the operations of the tracks, relevant Associations, slot machines and breeding and racing horses sustain a total of about \$2.6 billion in value added (income) annually in Ontario (in the year 2000 the impacts were \$1.6 billion). On a per dollar basis, every dollar of expenditure in this industry results in \$1.22 in wages, interest, rent and profits.

***About \$2.6 Billion of Ontario's Income is Generated Annually by the
Horse Racing and Breeding Industry***

The highest income multiplier (1.3) is associated with the expenditures of the Associations. The income multiplier of the breeding phase expenditures is also high with a value of 1.29. The track operating expenditures show a lower multiplier value of 1.19 (see Table 9 and figures 7 & 8). These income multipliers compare rather favourably with the average industrial income multiplier of about 1.08 for the province. They exceed many other industrial multipliers because of both a relatively high proportion of labour intensive services in total expenditures and a large local content in these expenditures.

Table 9
Economic Impact Of Horse Racing and Breeding in Ontario

(In Thousands of 2004 Dollars)

	Track Expenditures	Association Expenditures	Racing Phase	Breeding Phase	Slot Operations	Total
Impacts						
<i>Initial Expenditures</i>	\$314,490	\$14,056	\$775,656	\$302,882	\$689,409	\$2,096,493
<i>Gross Output</i>						
Direct	\$314,490	\$14,056	\$775,656	\$302,882	\$689,409	\$2,096,493
Indirect & Induced	\$418,596	\$19,648	\$1,015,381	\$410,313	\$885,319	\$2,749,257
Total	\$733,086	\$33,704	\$1,791,037	\$713,195	\$1,574,728	\$4,845,750
Multiplier	2.33	2.40	2.31	2.35	2.28	2.31
<i>Value Added</i>						
Direct	\$160,641	\$8,126	\$361,921	\$153,528	\$396,607	\$1,080,823
Indirect & Induced	\$214,778	\$10,173	\$565,896	\$235,966	\$448,412	\$1,475,225
Total	\$375,419	\$18,299	\$927,817	\$389,494	\$845,019	\$2,556,048
Multiplier	1.19	1.30	1.20	1.29	1.23	1.22
<i>Employment (person yrs)</i>						
Direct	6,044	213	3,941	2,489	4,128	16,815
Indirect & Induced	3,663	171	8,772	3,966	6,653	23,225
Total	9,707	384	12,713	6,455	10,781	40,040
Multiplier	1.61	1.80	3.23	2.59	2.61	2.38
<i>Labour Income</i>						
Direct	\$141,604	\$7,247	\$225,896	\$117,478	\$209,428	\$701,653
Indirect & Induced	\$124,228	\$5,906	\$327,639	\$133,164	\$266,934	\$857,871
Total	\$265,832	\$13,153	\$553,535	\$250,642	\$476,362	\$1,559,524
<i>Taxes</i>						
Federal	\$78,397	\$3,468	\$164,430	\$66,400	\$141,969	\$454,665
Provincial	\$44,309	\$1,913	\$119,307	\$46,697	\$1,013,221	\$1,225,446
Local	\$25,670	\$871	\$30,135	\$11,383	\$121,252	\$189,311
Total	\$148,376	\$6,252	\$313,872	\$124,480	\$1,276,442	\$1,869,422
<i>Imports</i>						
From Other Provinces	\$22,895	\$1,034	\$49,721	\$21,377	\$41	\$95,068
From Other Countries	\$62,391	\$3,024	\$140,308	\$55,027	\$113	\$260,863
Total	\$85,286	\$4,058	\$190,029	\$76,404	\$154	\$355,931

Source: Econometric Research Limited

More significant perhaps is the employment impact of these expenditures. A total of 40,040 person years (full time equivalents) of employment are sustained by these expenditures (this translates into over 65,000 jobs when part-time and casual labour is included). Direct employment (16,815 person years), although large and significant still falls short of the indirect plus induced employment of 23,225 person years. But there are just as many person years of employment outside the industry as there are within it. It is estimated that between 25,000 and 30,000 Ontarians are engaged in the "equine side" of the industry on a paid or unpaid basis. In the year 2000, only 30,940 person years of employment was sustained by the industry.

40,040 Ontarians Owe Their Permanent Full-time Jobs to the Horse Racing and Breeding Industry and Its Associated Activities. There are Many More Ontarians Who Are Engaged In the Industry On A Part-time Basis And Even Unpaid Basis

The highest employment multiplier (3.23) is that generated by the expenditures in the racing phase followed by slot operations expenditures with (2.61). Alternatively, the highest direct employment per one million dollars of expenditure is associated with the track operations expenditures with a total of about 19.2 full-time equivalent jobs. When total employment is counted this total rises to 31 person years. These employment figures are indicative of a labour-intensive industry. Both, the direct and total employment figures compare well with other labour-intensive industries in Ontario. The effective annual direct wage is relatively low at the track at about \$23,429. This effective wage rises to \$50,734 for the slot operations expenditures, while the average in the industry stands at \$41,728. The effective direct wage in the industry is now larger than the effective total wage. This reflects a change in the relative sizes of effective direct and effective total wages in the industry since last year.

The Effective Direct Average Wage in the Horse Racing and Breeding Industry Exceeds \$41,728 Per Full Time Equivalent Job and is Highest for Slot Operations at \$50,734

The three levels of government are major recipients of income from this industry's operations. Total tax revenues and profits for all three levels of government are about \$1.9 billion (the corresponding number in the year 2000 was \$576 million). The lion's share goes to the Provincial government with nearly \$1.23 billion, but the Federal government also derives large recurrent revenues in the order of \$454.7 million.

The Three Levels of Government Derive About \$1.9 Billion in Tax Revenues and Profits on the Impacts of Horse Racing and Breeding in Ontario.

Figures 7 and 8 provide a clear picture of the comparative efficiencies of these impacts by type of expenditure. It is clear that the racing phase makes the largest absolute contributions and the highest relative contributions in terms of gross output, income and employment.

Figure 7
The Economic Impacts of the
Ontario Horse Racing and Breeding Industry

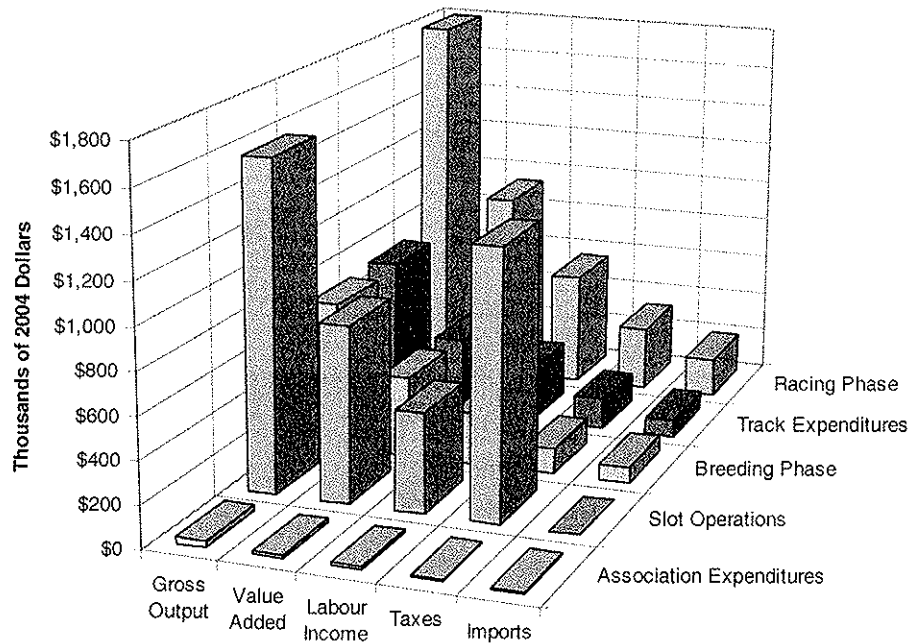
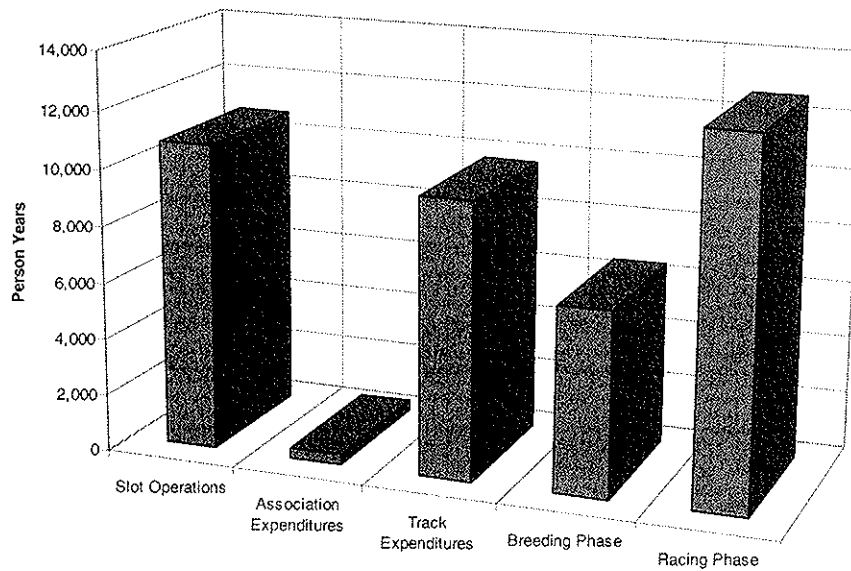


Figure 8
Employment Impacts of the
Ontario Horse Racing and Breeding Industry



The employment impacts of the horse racing and breeding industry in Ontario are diffused and cover almost the full spectrum of activities. Table 10 presents these impacts by industry. Naturally services sectors capture the largest share of the employment impacts, but it is equally true that both agriculture and manufacturing make respectable contributions. Actually, agricultural employment impacts are larger than manufacturing or those associated with utilities and communication (Figure 9). This is indicative of the strong linkages horse racing and breeding maintain with the rural economy in Ontario.

The Employment Impacts of the Horse Racing and Breeding Industry in Ontario are Diffused and Cover Almost the Full Spectrum of Activities.

Table 10
Employment Impacts Of Total Racetrack Expenditures
Employment by Sector (Person Years)

Sectors	Track Expenditures	Association Expenditures	Racing Phase	Breeding Phase	Slot Operations	Total
Agriculture	170.8	4.0	1,303.3	2,868.5	101.7	4,448.4
Forestry	5.1	0.2	10.9	7.3	4.5	28.0
Fishing and Trapping	2.5	0.1	3.1	2.3	2.6	10.6
Mining	8.8	0.4	41.7	20.5	23.7	95.2
Primary Industries	187.2	4.7	1,359.1	2,898.6	132.6	4,582.2
Food and Beverages	190.0	3.2	130.9	69.9	94.6	488.6
Rubber and Plastic	20.6	1.1	41.6	17.8	37.9	119.0
Textiles	7.1	0.4	7.7	4.5	6.9	26.6
Knitting and Clothing	24.4	1.3	41.3	28.3	40.9	136.2
Wood and Wood Products	11.6	0.5	11.8	5.7	8.0	37.6
Furniture and Fixtures	12.5	0.6	28.2	9.8	15.5	66.5
Paper and Paper Products	27.8	1.3	30.3	10.8	21.9	92.1
Printing and Publishing	163.6	8.1	79.8	24.7	72.0	348.1
Primary Metals	14.0	0.7	51.7	13.8	15.9	96.1
Metal Fabricating	47.8	2.3	196.2	38.1	40.9	325.2
Machinery and Equipment	21.9	1.2	333.0	41.7	24.6	422.3
Transportation Equipment	38.2	2.2	45.8	25.4	37.5	149.1
Electrical Products	44.9	2.6	169.3	42.7	64.0	323.5
Non-Metallic Minerals	9.6	0.4	14.7	7.0	10.3	42.0
Petroleum Products	4.4	0.2	27.6	15.0	14.8	62.0
Chemical Products	29.5	1.4	118.4	27.7	34.7	211.8
Misc. Manufacturing	21.7	1.1	29.7	15.3	24.6	92.4
Manufacturing Industries	689.6	28.6	1,357.6	398.3	564.9	3,039.0
Construction	63.7	1.4	109.4	114.6	132.4	421.4
Utilities & Communications	177.0	10.0	85.5	48.0	75.6	396.1
Trade and Finance	959.7	47.8	2,049.1	801.2	2,950.6	6,808.4
Transportation and Storage	116.0	5.1	1,079.1	293.4	946.0	2,439.6
Other Services	7,514.2	286.5	6,673.2	1,901.0	5,979.0	22,353.9
Services	8,589.9	339.4	9,801.4	2,995.7	9,875.5	31,601.9
Total	9,707.4	384.1	12,713.0	6,455.0	10,781.0	40,040.5

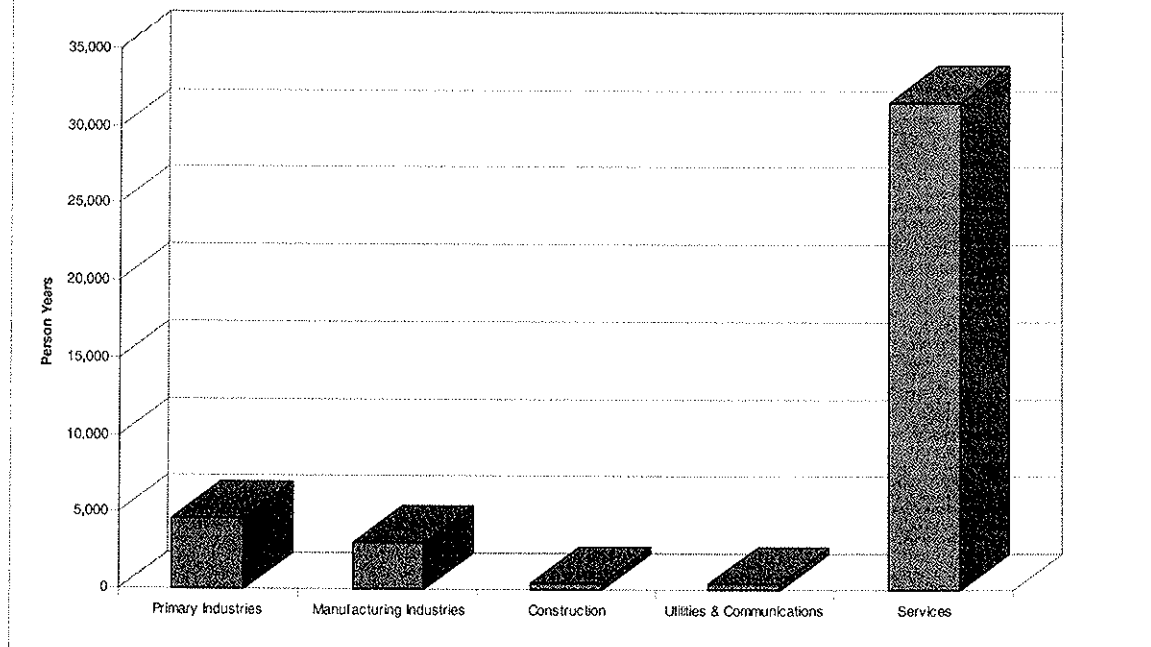
Source: Econometric Research Limited

The links of this industry to the rural economy are substantive and complex. A significant horse breeding industry is needed to produce the horses for the racing phase. Thousands of acres of agricultural land and many workers are needed to care, train and groom the animals and maintain the farms where they reside. The gestation period of horses is over 11 months and horses do not start to race until they reach the age of two or three. This means that about three to four years of time and resources are spent on producing and training each horse before it ever reaches the track. It is equally true that most of the veterinarians, blacksmiths, farriers, hay and grain suppliers, transportation workers, harness and saddle makers and many others who provide services and products needed to breed, maintain and train the horses are located in the rural parts of the province. This is why the industry is a critical sector in the rural economy and represents a viable vehicle for connecting the urban entertainment sectors to the rural sectors of the province.

The Industry is A Critical Sector in the Rural Economy and Represents a Viable Vehicle for Connecting the Urban Entertainment Sectors to the Rural Sectors of the Province.

A good number of the jobs in the services and manufacturing sectors are also in the agricultural industry and/or in the rural economy. These are typically the farriers, trainers, transportation workers, hay and grain suppliers, harness and saddle makers, feed manufacturers, etc. While most of these workers are directly involved in the horse breeding and racing industry, an equal number are involved indirectly in sustaining the operations of the industry. Again, a good number of them are in the rural areas of the province.

Figure 9
Comparative Employment Impacts of Horse Racing and Breeding
By Sector



Limitations

The following outlines salient limitations imposed on the approach and findings of this analysis.

- An effort has been made to ensure that the estimates in the Report are made in a conservative manner to avoid overstating the results. For example, the total operational expenditures do not include the expenditures made by the Horse Improvement Program.
- Benefits are not always easily expressed in monetary terms. For example, social benefits from horse racing are not easily measured. In these cases we have endeavoured to demonstrate the nature and extent of benefits realised in the province of Ontario through other narrative means.
- This research program involved the administration of surveys to race tracks and race related Associations. These surveys were not repeated to cover more recent changes. We did not undertake a survey of patrons or horsepeople. Data was collected from various sources and from industry participants but was not verified directly by ERL.

- Since the impact results are based on data sets compiled from a variety of sources, they are not strictly statistically reliable and are therefore subject to a margin of error.
- The model used is a simulation model and, as such, it creates a theoretical picture of the future of the provincial economy, it does so only on the basis of a series of assumptions.
- The number of horses may be overstated because we did not take into account the effects of deaths and injuries on the existing stock, but we also understate the total number of horses as we have excluded a number of horses on the farms during the breeding phase.
- Trends and patterns depicted in this study may not continue in the future in view of the many continuous radical technological changes buffeting the industry, cannibalization, illegal activities and changes in the Canadian dollar.

Conclusions

Horse racing and breeding are basically rural activities which assume a critical function in shoring both the rural economy of Ontario and diversifying its income sources. The impact results indicate a relatively high level of efficiency in the creation of jobs per dollar of expenditure and very large returns to all levels of government. All the multipliers reported here are relatively high and compare rather favourably with other tourism or even industrial multipliers.

A number of findings of the study are summarised below:

- The horse racing and breeding industry is an agricultural based industry that will also augment and diversify the tourism, entertainment and export economic base of Ontario.
- Wagering in Ontario, which peaked in 1995 at \$1,179 million (\$638 million on thoroughbred and \$541 million on standardbred) declined slightly to \$1,143 million in 1999, but managed to recoup its losses and rise to \$1,193 million in 2000 and to \$1,244 million in 2002. In 2003, the wagering declined slightly to \$1,205 million and further in 2004 to \$1,177 million. Wagering today is in nominal terms at the same level it achieved a decade ago. In constant 1992 dollars, total wagering has declined significantly as nominal wagering did not keep up with inflation. In constant dollars wagering peaked at \$1,107 million in 1995 but declined to \$979 million in 1998 which represents a decline of 8.5% over the period. Wagering in constant dollars recovered slightly to \$1,045 million in the year 2000 only to decline slightly to \$1,029 million in 2002 and significantly to \$986.8 million in 2003 and to even lower levels in 2004 with only

\$946.4 million. Wagering on standardbred horses also peaked in nominal and constant dollars in 1995 but declined thereafter. In 1992 dollars, wagering on standardbred horses declined from \$508 million in 1995 to \$417 million in 2002 further to \$392 in 2003 but increased slightly to \$402. Wagering on thoroughbred horses remained almost constant (over \$600 million) in real dollars at its peak value between 1995 and 2002, but declined by 2.8% in 2003 to \$595 million and further declined to \$545 million in 2004.

- The horse racing and breeding industry in Ontario is credited with \$2.1 billion of recurrent expenditures in 2004 dollars. This represents almost no increase from the 2003 level, and is pale in comparison to the 25% increase between 2002 and 2003 or the increase from the \$1.2 billion in the year 2000.
- Today the Ontario horse racing industry is hi-tech, a vibrant partner in the entertainment business and is a key node in the New Economy. It combines slot machines with live racing, receives and transmits racing signals to/from the rest of the world, and wagers are accepted over the telephone and are made into many teletheatres managed by the industry at several locations outside the tracks.
- Over 40,040 Ontarians owed their permanent jobs to the horse racing and breeding industry in the province in 2004 (only 30,940 Ontarians owed their jobs to the industry in the year 2000). In fact, many more Ontarians work in the industry on a part-time basis. A total of about 65,000 people are employed in this industry when both part-time and casual labour is included.
- All three levels of government realise substantial revenues on the horse racing and breeding industry expenditures (\$1.9 billion compared to \$576 million in the year 2000). The Federal government realises \$454.7 million, whereas the Provincial government realises \$1.23 billion (inclusive of the slot machine profits at the tracks). The remaining \$189.3 million goes to local governments in the province (this total is inclusive of the slot machine revenues paid to host municipalities).
- A total of \$1.6 billion in wages and salaries in Ontario are sustained annually by the total expenditures of the provincial horse racing and breeding industry. This total was slightly over \$1 billion in the year 2000.
- The effective average direct wage in the slot operations exceeds \$50,734 annually and is among the highest industrial wages in Ontario.
- The employment impacts of the horse racing and breeding industry in Ontario are diffused and cover almost the full spectrum of activities. Many of the jobs reflect the strong linkages of horse racing with agriculture, the agricultural manufacturing sector, the agricultural services sector, and the rural economy. **A total of 4,448 person years of employment are sustained by the industry in the agricultural sector.** This under estimates the total employment impacts as many more jobs are created in the rural services sectors.

- The links of this industry to the rural economy are substantive and complex. A significant horse breeding industry is needed to produce the horses for the racing phase. Thousands of acres of agricultural land and many workers are needed to care, train and groom the animals and maintain the farms where they reside. The gestation period of horses is over 11 months and horses do not start to race until they reach the age of two or three. This means that about three to four years of time and resources are spent on producing and training each horse before it ever reaches the track.
- Most of the veterinarians, blacksmiths, farriers, hay and grain suppliers, transportation workers, harness and saddle makers and many others who provide services and products needed to breed, maintain and train the horses are located in the rural parts of the province.
- Ultimately, many racehorses fill the ranks of pleasure horses, jumpers, and dressage animals, thus continuing the need for labour, feed and supplies.